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SOME PROPERTIES OF SCHOOLS AS SOCIAL SYSTEMS.

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EFFECTIVE SCHOOL IMPROVEMENT DEPENDS UPON AN ANALYSIS OF SCHOOLS AS SOCIAL SYSTEMS AND THE DETERMINATION OF THOSE STRUCTURES AND PROCESSES MOST PROMISING AS ENTRY POINTS FOR CHANGE EFFORTS. FIVE FEATURES ARE CENTRAL TO THE AMERICAN PUBLIC SCHOOL--ITS CHILDREN-CHANGING EMPHASIS, LOCAL CONTROL, NONVOLUNTARY NATURE, RELATIVE ISOLATION FROM OTHER SOCIALIZING AGENCIES IN THE LOCAL COMMUNITY, AND COMPLEX LINKAGE WITH OTHER INSTITUTIONS AND ORGANIZATIONS IN THE LARGER SOCIETY. FOUR ESSENTIAL PROPERTIES OF SCHOOLS AS SYSTEMS INCLUDE--(1) DIVERSITY AND CONFLICT IN GOAL SPECIFICATION, (2) MECHANISMS FOR TASK ACCOMPLISHMENT, (3) INTERNAL INTEGRATION, COORDINATION, AND INTERDEPENDENCE, AND (4) MUTUAL ADAPTATION OF SCHOOL AND COMMUNITY. PROBLEMS RELATED TO EACH OF THESE PROPERTIES ARE SYMPTOMATIC OF THE SCHOOL IN INTERACTION WITH CURRENT DEMANDS. IMPLICATIONS OF THE ANALYSIS FOR RESEARCH AND ACTION INCLUDE THE RECOGNITION OF SCHOOL SYSTEM PROPERTIES HAVING CURRENT UTILITY, FOCUS OF EFFORTS ON MODIFYING ESSENTIAL PROPERTIES RATHER THAN ATTACKING SYMPTOMS, CAREFUL ATTENTION TO THE GAINING OF SANCTIONS FOR CHANGE AGENT RECOMMENDATIONS, DETERMINATION OF THE CLIENT SYSTEM WITH WHICH THE CHANGE AGENT IS WORKING, AND FORMULATION OF MAJOR CHANGE GOALS FOR SCHOOL SYSTEMS AND STRATEGIES FOR THE ACCOMPLISHMENT OF CHANGE. THIRTEEN MECHANISMS ARE SUGGESTED FOR CORRECTING DYSFUNCTIONAL ASPECTS OF SCHOOLS. THIS ARTICLE WAS PUBLISHED IN "CHANGE IN SCHOOL SYSTEMS," AVAILABLE FROM THE NATIONAL TRAINING LABORATORIES, NATIONAL EDUCATION ASSOCIATION, 1201 16TH STREET, N.W., WASHINGTON, D.C. 20036, FOR $2.50. (JK)

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CHANGE IN SCHOOL SYSTEMS

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INTRODUCTORY NOTE— WHAT IS COPED?

Change in School Systems is a companion volume to *Concepts for Social Change*. The working papers presented in *Concepts for Social Change* develop the core ideas about planned change that give direction to the Cooperative Project for Educational Development (COPED). The papers in *Change in School Systems* focus attention on the special properties and processes of the schools and on strategies for change designed to test and develop the core ideas. Although COPED is concerned with improving education, the ideas in both sets of papers are relevant to change in other social contexts and, indeed, were in many instances derived from work in other fields.

COPED is a number of things. It is a three-year project, funded by the U. S. Office of Education, for "the exploratory development of models of planned change in education" in about 25 school systems located in the metropolitan areas of New York, Boston, Chicago, and Detroit-Ann Arbor (with affiliates separately funded in Madison). It is an emerging inter-university facility committed to joint inquiry, to collaborative action, and to interdependence among universities and school systems as a means to improving education. COPED is thus a linker, joining behavioral scientists and school system "change-agent teams" within and across regional centers. With coordination by the National Training Laboratories of the NEA, COPED links staff teams from Teachers College, Yeshiva University, and Newark State College; from Boston University and Lesley College; from the University of Michigan; from the University of Chicago; and from the University of Wisconsin.

To a degree not fully anticipated, COPED has also become a leadership development facility. Looking at the young behavioral scientists who in a few months have achieved full colleagueship at each center, we were reminded at a recent all-staff COPED seminar that "a chicken is simply an egg's way of making another egg." COPED has been an effective producer and assimilator of competent staff members. It has done so by providing a continuing seminar anchored in the realities and urgencies of working with school systems. Through personal interactions among people with a wide range of experience and knowledge, the seminars and regional staff sessions have provided learningful confrontations around ideological, conceptual, methodological, and value issues.

COPED's effectiveness in the area of professional development was greatly enhanced in 1966-67 when grants from the U.S. Office of Education and the Fund for the Advancement of Education of the Ford Foundation enabled NTL and COPED to initiate in-service training programs both for university-based interns and for school system- and education association-based training consultants.

COPED is also a forum—a continuing seminar—for conceptualizing about, studying, and developing models for bringing about improvement in education. The titles of the first papers prepared for discussion at COPED seminars, the working papers presented in *Concepts for Social Change,* reflect the themes and concerns of COPED. Buchanan, in "The Concept of Organization Development, or Self-Renewal, as a Form of Planned Change," links COPED concerns to relevant issues in settings other than education. Watson's "Resistance to Change" specifies factors at the individual personality and social-system levels which make for resistance. In "Concepts for Collaborative Action-Inquiry" Thelen distinguishes between "forced change" and "genuine change" where change in overt behavior is rationalized in internal changes of concepts, perceptions, and attitudes. Lippitt's "The Use of Social Research To Improve Social Practice" describes patterns of using scientific resources in coping with persistent social problems. Havelock and Benne develop a conceptual framework in "An Exploratory Study of Knowledge Utilization." Klein's paper on "Some Notes on the Dynamics of Resistance to Change: The Defender Role" calls attention to the positive contribution that resistance may make in change efforts. The concluding paper in that volume, "Self-Renewal in School Systems: A Strategy for Planned Change" by Miles and Lake, illustrates application of the various concepts in the development of strategies for change in education. The papers in the present volume continue the discussion but focus more specifically on the schools and on strategies for action.

Finally, COPED is an organizational experiment testing the feasibility of creating and sustaining an inter-university facility for collaborative work with schools. The concept of inter-university collaboration has been put to rigorous test. There are clearly costs to be paid in time, in communications efforts, in energy, and in threatened autonomy, conflicting loyalties, and potentially "watered down" compromise. Thus far there is the conviction that the benefits outweigh the costs. Incentives to collaboration have included access to a wider range of ideas and experience and to joint resources for staff development and for work on such specific tasks as developing research instruments. Long-range or anticipated values include richer interpretation of results because more school systems can be included, a wider range of strategies can be studied, and a greater range of orientations can be explored. Conceptual work is richer and

more challenging than it would be within individual regions. Assumptions and issues are more sharply defined through inter-regional reaction and interaction. At the same time inter-regional commitments and responsibilities have supported continuous task accomplishment which might have been postponed if the region alone were involved.

A variety of means have been used in fostering inter-regional collaboration. A representative Executive Committee was created at the first all-staff seminar. It meets approximately every other month and holds more frequent one-hour telephone conferences. (The conference call is beginning to be used by other COPED committees and task forces and also to link participating school systems and university staff members within a region.) The all-staff seminars every three or four months have been the major means for identifying and working through issues and giving COPED an identity. The joint development of the in-service training program and continuing utilization of the interns and the school system training consultants is another major source of organizational strength.

COPED goals are emergent, with testing and reformulations made through the seminars, task forces, and regional sessions. The goals have been stated broadly as:

To increase knowledge about how change takes place in schools.

To develop, assess, and draw generalizations regarding the effectiveness of specific strategies of planned change.

To disseminate, in ways that they are likely to be utilized, findings and materials generated through COPED.

To help about 25 school systems become self-renewing (innovative, competent in the management of innovations, skillful in problem solving).

To influence the universities as sources of help to school systems.

COPED will be asking:

What actual changes occur in COPED-linked school systems?
What are the causes for these changes?

At this writing—when pre-involvement measures are being taken and relationships established between university and school systems—no one is under any illusions that the task is simple. The reality, as Matthew Miles, Measurement Committee chairman, has stressed, is that some 25 school systems are being entered by COPED change agents with varying entry strategies and with a wide variety of subsequent change approaches carried out in different operating centers. To assess change carefully and

explain it plausibly represents a very substantial challenge. We know that the challenge has to be accepted if we are to emerge with findings that relate significantly to pressing educational problems and not simply with 25 "interesting" development projects.

A major commitment through a number of months has therefore been to the development of a "core package" of assessment instruments. By its reality and its urgency, this effort has helped bring COPED into being as an organization. It has also demonstrated one of the important rewards in attempting to work in an inter-university staff rather than independently. The development of the core package has utilized the variety of special interests and competencies represented at the various centers.

As issues and problems, as well as potential benefits, have become clearer, stronger commitment has developed to cross-center designing and the ultimate discipline this involves. The earlier Measurement and Continuous Assessment Committees have been merged into a representative Research Council and given responsibility for improving the core package; for helping the regional groups make their hypotheses more explicit and classifying the districts they are working in more rigorously; and for formulating, "working," and bringing important issues to the total staff. For example, the Council has been helpful in defining the relative demands of service to client-collaborator and of research. To paraphrase William Schutz, research coordinator for COPED, we need to be rigorous and experimental in formulating hypotheses, testing them, and evaluating results. But if we are to avoid sterile results—much ado about little—this phase of the scientific enterprise needs to be preceded by a period of discovery. The researcher entering the system needs to be open, creative, sensitive to the situation, imaginative, free to *discover* what the problems really are and what is happening.

COPED's potential importance lies in what can be learned not only about change and improved problem-solving skill and self-renewal in schools but also in what can be learned about interdependent approaches to educational problems. While it is too early to predict the ultimate contribution of COPED, experience thus far suggests that inter-university facilities can be created and sustained and that collaboration can be achieved between university and school to the advantage of each. The readiness of school systems to enter into COPED—though this means commitments of time, energy, and funds—is one of the promising factors.

Without naming the entire staff and each of the committees, it would not be possible to acknowledge the contributions that have brought COPED into being. NTL's Core Committee on Education should be

listed as the initiators—Ronald Lippitt, chairman, and Paul Buchanan, David Jenkins, Matthew B. Miles, Don Orton, Herbert Thelen, and Goodwin Watson. The COPED Executive Committee should also be named: Charles Jung, Fred Lighthall, Dale Lake, Elmer VanEgmond, Richard Hammes, Robert A. Luke, Jr., Miriam Ritvo, Loren Downey, Donald Barr, Audrey Borth, and Robert Fox. There should also be acknowledgment of the roles of William Schutz as research coordinator, Goodwin Watson as publications chairman and COPED editor-in-chief, and finally, Stanley Jacobson, who has made preparing these papers for publication his first project as newly appointed publications director for NTL.

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SOME PROPERTIES OF SCHOOLS AS SOCIAL SYSTEMS

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Responsible efforts to improve schools should presumably rest on an analysis of their actual, contemporary properties as social systems. Even if we take the Lewinian route to understanding a system by trying to change it, it remains true that we must at least know which structures and processes are, on the face of it, most promising as entry points for change efforts. We need some mapping of the territory called "the school"; otherwise disproportionate amounts of energy may go into change efforts which are ultimately self-defeating, or perhaps only irrelevant.

In spite of the current wave of interest in educational innovation, there do not appear to have been very many analyses of schools or school systems which would help us discriminate them from systems of other sorts (agricultural, medical, industrial—all of which are frequently used as analogical models when someone wishes to make his favorite point). Speculative analyses have been made by Campbell (1958), Miles (1964), Wayland (1964), and Buchanan (1965). The present discussion is an attempt to extend and integrate these discussions, and is a development of comments made from working notes and discussion at a seminar of the Cooperative Project for Educational Development (August 8-10, 1965).[1]

The effort throughout is to see schools as we think they are, minus ideology, conventional "wisdom," and polemics. This is no easier for the author than for anyone else; one of the severe problems of any analysis of this sort is that all adults have had experience with schools, some of which has usually been negative in one way or another. Thus the feeling

[1] Critical comments and suggestions were made on an early draft of this paper by Paula Holzman Calder, Dale Lake, Goodwin Watson, Betty Miles, and Paul Buchanan. Donald C. Klein in particular supplied detailed suggestions, along with the preliminary draft of the final section covering implications and conclusions.

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of wanting to "get back"—in both the retaliatory and conservative senses —tends to cloud vision, and to induce a tendency toward normative prescription.

The paper is organized in four sections. The first section discusses five general features of the American school which have come to be central to it, largely because of historical precedent. The second section suggests some presently existing properties of the American public school seen as a coherent social system, the aim here being to look at the genotypical level as far as possible. The third section moves to the phenotypical level, and examines the resulting "symptoms" or problems with which anyone planning to carry out school improvement efforts in America is faced. This mode of presentation obviously suggests the belief that dealing directly with symptoms will be unproductive, unless diagnosis and change efforts are constantly informed by genotypical notions. The fourth section of the paper discusses some of the research and action implications of this analysis, in terms of focal variables, change goals, points of entry, and change strategies.

GENERAL FEATURES OF THE SCHOOL

Children-Changing Emphasis

Probably the only really essential feature of any elementary or secondary school is that it is a social arrangement which exists for the purpose of bringing about desirable changes in children. This bare-bones definition has at least two implicit features hidden within it. First, the children involved are ordinarily considered to be normal rather than ill or severely retarded. Second, the children are not the exclusive property of the school, but are lent to it for varying periods of time by their parents, who compose part of the "sponsoring public" for the school.[2] Some problems and derivations can immediately be seen (for example, *what* changes are seen as desirable? and by whom? what kinds of overlapping group memberships and role conflicts are children likely to have, as between school and home?), but these will be developed in the next section. Here, it is sufficient to point out that the school, like the church, the clinic, and the Scout troop, is basically a system aimed at bringing about desirable changes in children.[3]

[2] In some senses, the parents themselves may also be seen as a "target" public—the school seeks to influence them in ways beyond those necessary to seek support and sponsorship.

[3] Change induction in children is the manifest function; many semi-latent functions (like preservation of certain academic traditions) and some clearly latent functions (like baby-sitting, the provision of a dating facility for adolescents, and the enhancement of community pride via spectator sports) also exist. Such functions will be explored more fully in the following section in the discussion of goals.

"Local" Public Control

Schools can be organized, obviously, in a wide variety of ways. In America certain historical precedents have grown up and have become deeply ingrained in the schools as we now know them.

One of these is the idea that the schools "should" be locally financed and controlled by the general public. In principle, this is usually carried out by the appointment or election of a supposedly policy-making board of local citizens and by raising funds from the local community, usually by taxes on real property.

In fact, the average American public school receives from a quarter to a half of its support from state rather than local funds, and federal support is growing rapidly. A wide variety of national constraints exists—from national examination systems and nationally marketed books and equipment to a nationally mobile (hence interchangeable) teacher and student population. Beyond this, there is some doubt whether local boards do in fact exert policy control: the superintendent may well be the main source of influence on all but gross matters (for a case, see Kerr, 1964). However, in spite of all this, most Americans operate from the belief that schools not only "ought" to be, but *are* locally controlled. School problems usually turn out to be deeply political in nature and involve a fair amount of lay participation. Most school decisions are made on a community-by-community basis—often in response to similar national pressures—rather than at the state or national levels directly. There are about 30,000 local school districts, and for many purposes they can be regarded as meaningful units, whether seen from a social-psychological, a financial, or a legal point of view. They are not, however, genuinely locally controlled.

Nonvoluntarism

The American public schools—like those in all industrialized countries—are compulsory up to a certain age. More precisely: every child must be in *some* school, and the chances in America are about six to one that it will be a public one. The compulsory aspect of the school makes for problems in both learner motivation and teacher attitude. The brute fact to keep in mind, however, is that about 48 million children are required to be in elementary and secondary schools in America each day during the school year. Taking care of these bodies necessitates the training and regular replenishment of a work force of about 1.9 million teachers, along with about 100,000 administrators, superintendents, principals, and supervisory personnel. With numbers of this sort, there must inevitably be an enormous range of variability among persons holding educational positions. It is difficult to assert that teachers and administrators

are professionals in any meaningful sense of that word (which usually implies a body of practice grounded in one or more basic disciplines, reference-group control over entry to the profession, and a widely accepted code of ethics regulating contacts with clients and others). As Wayland (1964) has pointed out with clarity, teachers and administrators are actually semi-professionals operating in a bureaucratic structure.[4]

Isolation from Other Socializing Agencies

The school in America, as now arranged, appears to be disconnected from other institutions which also have the function of bringing about changes in children. These include the church (for historical reasons of separation of church and state); the family (in any systematic sense); and the entire range of rehabilitative, recreational, therapeutic and protective agencies (courts, police); employers; and various political groups. There are strong legal supports for this disconnection in the form of certification requirements, specifications for legitimate sources of funds, and the like. If we examine the situation from the child's point of view, however, these socializing agencies are not emotionally separate at all: each is making demands on him, each supplying gratifications and rewards of particular sorts. He may, in fact, find himself in considerable conflict as he copes with varying demands from different socializing agencies. The general point being made here is that local "horizontal" *institutional* linkages, other than open school nights, report cards, and the PTA, are not well developed (see Lippitt, 1965).

Linkage to Larger Systems

The American school is tied by more or less tacit "vertical" linkages to a number of other institutions and organizations in the larger society. These include colleges and graduate schools which are able to make and enforce certain demands as to curricular offerings, the general occupational structure of the society and the requirements of the occupational roles as they develop, accreditation agencies, state departments of education, and —increasingly—the federal government. In addition, a wide variety of commercial structures form a part of the environment: materials vendors, equipment manufacturers, the mass media, and research and consulting organizations. So, too, do a variety of nonprofit structures, including foundations, testing organizations, special interest groups, voluntary and professional organizations, and special innovative groups like those

[4] These professionals, by the way, all fall into the age category "adult." Institutional arrangements in schools always seem to assume that stronger, more powerful, more educated persons occupying adult status are the only legitimate educative agents. Experimentation with other alternatives is rare (see Lippitt & Lohman's work on peer teaching, 1965).

represented in national curriculum programs. The general point is perhaps obvious; it only must be emphasized that the so-called "locally controlled" school district does, in fact, exist in a complex environment, some aspects of which exert close legal and financial constraints. There are, in effect, a large number of relevant publics for any particular school district—or school building.

This section, then, has stressed five general features of the American public school: its children-changing emphasis; the notion of apparent local control; the nonvoluntary nature of the undertaking for children and adults alike; relative isolation from other socialization agencies in the local community; and tacit or explicit linkages to a wide variety of subsystems in the larger environment, some of which exert clear constraints.

GENOTYPICAL PROPERTIES OF TODAY'S SCHOOL

To distinguish genotypes from phenotypes is always difficult. The intent here is to focus on properties of the school which seem—partly because they flow from the general features just discussed—somehow more basic, more underlying, more *essential* properties of the school as we now know it than are statements of symptoms and recurring "problems." The ideas in this section have been organized under four general headings: properties relating to the organization's goal; those dealing with its task-accomplishment methods; those relating to its integrative or internal maintenance efforts; and those dealing with its adaptation skills in relation to the broader environment. For each of these general headings, there will be an attempt to discuss the problems as seen from the point of view of the organization, *qua* organization,[5] and from the point of view of the child as inhabitant of the organization.

Wherever possible, these genotypical properties will be linked back to the general features described earlier. The reader will undoubtedly be able to make many sorts of connections which go unspecified in the text.

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[5] Controversy as to whether the American public school is "really" an organization is probably unprofitable. If by "organization" we mean a hierarchically organized assemblage of persons and groups aimed at the accomplishment of some task, then the school clearly qualifies. If we have an image of organization which implies a tightly organized "line and staff" model drawn from military or industrial experience, the appellation is less appropriate.

It does seem that schools are in some respects—because of some features discussed in the preceding section—somewhat unlike organizations devoted to producing physical things and selling them at a profit, or even unlike organizations devoted to making knowledge.

The fact that the child exists not only as a "member" of the school as an organization, but also as a member of his family, for example, means that the school and the community form a kind of complex inter-system, and the school

Diversity and conflict. Since the public schools are supposed to bring about desirable changes in children and exist in an environment of so-called "local control" amid a host of other subsystems, all with expectations for the school, educational goals are usually (a) vaguely stated; (b) multiple in nature, since the school is expected to do many different things to meet the wishes of its many publics; and (c) conflictful, in the sense that different publics may want mutually incompatible things. For example, the school is expected to cause children to "achieve" mastery of academic subject matter, *and* to develop and maintain physical and emotional health in children, *and* to socialize children (cf. Parsons, 1959) into industrial society (e.g., make them neat, obedient, prompt, achievement-oriented). There are many circumstances under which these goals may prove mutually interfering.

As if this goal diversity were not enough, the school is also faced with tremendous input variability in terms of the learners who are expected to achieve these goals. The compulsory nature of the public school means that children occupy a very wide range of ability and motivation to learn must be accepted. The wide variability in personnel competence

cannot be thought of as isolated, closed, or as determined primarily by forces within the system as such. This is not different in kind, of course, from the problems faced by an industrial firm, which must also engage in meaningful commerce with its environment. The point being made here is that the school is perhaps more like one component of a community's life than it is like a factory, a university, or a government agency. It is possible that the inter-system properties of the school are among its most crucial features. (See also the following discussion of adaptation properties.)

However, there can be no doubt that general properties of any organization (e.g., the tendency for vertical communication to become distorted) can be seen in schools. They are not conceptually discontinuous from other types of organizations.

[6] The *content* of socialization goals undoubtedly shifts as different age levels of students are considered. For young children, the development of achievement motivation, a sense of membership in the classroom group, and a certain degree of neatness, obedience to authority, etc., seem central; for adolescents, the management of sex and aggression seem more on center stage.

One feels a need for more empirical data on goals. Consider, for example, a phenomenon which might be characterized as "The Case of the Beatle Haircut." Adolescents and school administrators increasingly are in conflict over matters of personal dress, appearance, and so on, with administrators imposing a wide variety of sanctions in this area. Some alternative interpretations which have been offered to the author to explain this are:

1. Beatle haircuts (also eye make-up, sloppy clothes, short skirts, and so on) destroy the image of the school which the administration wants to create in the public's eye.
2. The school legitimately stands in *loco parentis,* but this position is being challenged (hence is reactively asserted by administrators).

which is a function of mass schooling has already been discussed above.

Given goal diversity, and the variability in children and personnel, one natural response is to create a hierarchy of goals. One's impressions are that "subject matter" outcomes—whether in terms of basic skills or retained information and principles—tend to be most highly valued, with socialization goals nominally second in line.[6] Custodial-care goals (baby-sitting, keeping teenagers off the streets, and the like) seem generally to be taken for granted, treated as latent functions of the school.

Emotional loading. School system goal specifications are also emotionally loaded, in the sense that children are valuable property—property with which the parent has already had varying degrees of success and failure.[7]

Product measurement problems. Since stated goals for schools are vague, multiple, conflicting, emotionally laden—and constitute changes in persons which occur slowly and over an extended period of time—most schools experience a good deal of difficulty in evaluating outcomes in any systematic way. Measures of socialization outcomes, other than teacher marks for classroom behavior (if they are given), are practically nonexistent, except in terms of the incidence of deviant behavior (fighting, truancy, and the like). And even the existing measures of intellectual mastery of subject fields tend to be limited to factual recall rather than internalization of the relevant methods of inquiry.[8] While product evalua-

3. Adults feel jealous of (or guilty about) adolescents' management of sex between puberty and marriage.
4. Intergenerational value conflicts are at work.
5. Presentations of self which are erotic or violent interfere with the learning process.
6. The school is expected to be a bastion of morality, strengthening superegos as much as possible.
7. Being neat, formal, and so on must be taught to children if they are to take their place in society; casual clothing also implies that no serious attention to learning is taking place.
8. A competitive, win-lose, negotiative relationship has developed, rather than a cooperative, problem-solving one.
9. School administrators are playing Delilah to the teenagers' Samson.

All of these proposed explanations (see also Friedenberg, 1966) have a certain plausible charm, but in the absence of clearer conceptualization and data collection, it is difficult to know what is at work.

[7] This comes out most strikingly, perhaps, in relation to the socialization goals of the school. If the child succeeds in both socialization and academic areas, it is often felt to be to the *school's* credit. If he fails in terms of socialization goals (i.e., is aggressive, drops out, or whatever) this is seen as a failure of the efforts of the *parent*. At any rate, it seems quite clear that parents do expect that the school will, or should, specify goals in the socialization area—many of them inconsistent with each other (not fighting versus being aggressive and standing up for yourself; being cooperative, but not conforming; being disciplined versus being creative; and so on).

[8] See the charming fable, "The Year the Schools Began Teaching the Telephone Directory" (Harmin & Simon, 1965).

tion is technically difficult in schools, it is not impossible! The fact that it is done so rarely in any satisfying way (Miles, 1964, pp. 657-59) may be an indicator of organizational defense against the conflicts and problems that would be inevitably laid bare if systematic evaluation were to be carried out.

• *From the child's viewpoint:* The idea of interviewing a sample of children of various age levels about educational goals is an attractive one. Discussion with three close relatives of the author (in third, sixth, and eighth grade, respectively) turned up responses to the question, "What is school for?" like, "It's to learn, it's to teach us stuff—you know, school stuff, like reading, arithmetic, writing, social studies." A little probing and a query: "Is the school supposed to teach you manners?" evoked items like, "Yes, not to talk in halls, not to run, raise your hand if you want to talk, be good, wait for your turn." The eighth grader, when asked, "Is school supposed to help you learn to get along better with other kids?" said, "Yes, it's supposed to, but it doesn't really work out that way, because they don't have any classes in it." The third grader said, "It's supposed to keep you physically fit." None of these children mentioned socialization goals spontaneously, nor did they mention custodial goals ("taking care of us while we are at school"), as might have been expected. The material supplied under socialization goals ("take your turn, don't run in the halls," and so on) suggests that for the child (as perhaps for the adult) socialization as such is less central than sheer control of large numbers of exuberant young bodies. The comments by these children also suggest that both they and their teachers tended to share relatively static assumptions about learning (i.e., transmission of subject matter as a major mode of learning) as contrasted with the use of discovery-type methods, the encouragement of independence, support of critical thinking, and the like.

Task Accomplishment Mechanisms

In any system, the school included, there are various activities, procedures, and behaviors which the members of the system believe will cause movement toward system goals.

Age-graded cohorts. For one thing, it is generally assumed that age-grading is essential if subject matter appropriate for a particular level of child is to be communicated adequately; by and large, students are organized in cohorts of a particular age range, rather than being in learning units composed on other bases ("readiness," sophistication about the subject matter, preferred learning style, and the like). The ungraded classroom, the interage group, the "teachable group" (Thelen, 1961) are not typical of the American school. Age-grading may have arisen historically from the idea of the core value of "fairness" in an

equalitarian culture, or from realistic, intuitive ideas about children's developmental readiness to cope with a particular learning content. It is possible, too, that age-grading (and moving the children onward to new teachers each year) serves to reduce the intensity of the emotional relationship to the teacher and enable *gesellschaftlich* orientation to take hold (cf. Parsons, 1959).

Role-performance invisibility. The basic role performance in the school —teaching—takes place out of sight of adult contact or supervision perhaps 90% of the time. Role performance is accordingly judged on formal, or once-removed, criteria, such as the children's interest or the number of graduate courses taken by the teacher (regardless of content), rather than on direct observation and monitoring of performance. Thus, it is difficult to get feedback—to know whether a particular teaching behavior does encourage movement toward particular goals (compare Lippitt, 1965). The present role structure of schools tends to discourage data collection along these lines. Informal norms also grow up supporting "autonomy" and prohibiting "interference" (Lortie, 1961). Under these circumstances, teachers who wish for support find it difficult to get; administrators who are concerned about inadequate teaching behavior find it difficult to get enough data to be helpful; and parents exert erratic pressure based on children's reports of "what the teacher did."

Low degree of role differentiation. In the elementary school in particular, there appears to be little division of labor in carrying out work operations: a teacher is a teacher is a teacher. Upward mobility within the teacher role is relatively infrequent (and, for other reasons, mobility out of it to the administrative role is frequent only for males).

This lack of role differentiation seems connected with a kind of role stereotypy (children as young as three can play the teacher role in games with ease). Teacher mobility across school systems may encourage this standardization still further. So does the fact that the "sponsoring public" of schools is composed of adults who were socialized into the learner role, and developed a clear set of expectations for the teacher role, 20 to 30 years ago. Researchers differ on whether wide teacher behavior differences can be discovc d across classrooms. If gross indices, such as the proportion of interaction time occupied by teacher talk, are considered, the variability is not large: most teachers talk from 60 to 80% of the time (Flanders, 1960). The physical arrangements of the classroom may encourage this further, but the presence of a body of subject matter, an adult, and some children tends to create role pressures toward "explaining," asking for recitation, and so on relatively independently of the personality of the particular incumbent of the teacher role. Biddle, after extensive research on teacher role behavior (see Biddle & Rosencranz, 1964), suggested that "the teacher is on rails";[9] almost nothing can be

[9] Personal communication.

done to alter the role performance short of radical structural change, such as that involved in team teaching.

Low knowledge component. It may seem paradoxical to say that schools are organizations which use organized knowledge minimally, since they presumably deal centrally with the dissemination of knowledge. But when it comes to knowledge bearing on the efficacy of the *work processes* being used by schools, it seems clear that awareness and direct use of relevant areas of knowledge (learning psychology, social psychology, sociology of the community) is limited. Under-utilization of knowledge may stem in part from the fact that policy decisions are made by a board of lay persons. This, in combination with teachers' semi-professional role definition, means that the distance between lay and professional persons is relatively smaller than in most other organizations.

The absence of concrete evaluation methods and criteria may also contribute to the use of ritualism and tradition, rather than the results of inquiry, as a basis for work-flow decisions.

In addition, schools as we now know them organize the work-flow mainly through *persons* as agents of the organization, placing a low amount of total investment into physical technology; this too seems a connected point.

Difficulty in practice diffusion. One last comment might be made about work-flow activities in schools. As Lippitt (1965) points out, the adoption of educational innovations often turns out to be relatively difficult, since the innovations involve human interaction and often require active learning or retraining of the operative, so to speak. The diffusion of behavioral innovations is a much more difficult matter in schools than in systems in which physical technology is the item being diffused.

• *From the child's viewpoint:* It is difficult to know what the child makes of all this; like the fish in water, he may be the last to question the way in which work operations in schools are organized. Some things do seem relatively clear, however.

For the child, the question of whether or not his new teacher is "nice" becomes a question of very high priority. A person with such power over one is, hopefully, benevolent; if not, the task is to learn what behaviors on one's part will please the teacher, stimulate benevolence, or at least stave off malevolent behavior. The child, in one sense, may initially direct more energy toward learning the teacher rather than the subject matter.

Heavy subject matter orientation probably becomes internalized relatively rapidly in children; along with many teachers, they, too, conceive that education is the process of transferring information from one person's head to another's. As the new curricula develop further, inductive knowledge-testing, knowledge-making modes may become more salient.

But one suspects that this may be a long time coming.

As children grow older and become more and more able to verbalize their feelings about teachers (when they talk to friends, parents—anyone but the teacher himself), and as they encounter more and more different teachers, one suspects that they become more able to understand that variability in teacher competence is at least as great as variability in child learning ability. In this sense, the notion of invisibility of role performance is inapplicable as far as the child is concerned; he can observe very closely and acutely—and can report to trusted others—his judgments of the adequacy of the role-taking involved.[10]

But children have relatively little legitimate power over adults. Many available modes of influence seem ultimately self-defeating, like rebellion and refusal to learn (one suspects that for many "difficult" children nonlearning is an active stance aimed at "getting back" at the teacher). Other influence modes are demeaning: begging, wheedling, giving the teacher the desired response in order to gain a point.

So, as the raw material of the organization around which work-flow is presumably organized, children find it hard not to become passive recipients of task accomplishment efforts on the part of teachers and other adults. However, a major untapped resource in any school is the ideas and reactions of children about the efficacy of the educational procedures in which they are involved, the role behaviors which are being presented to them, and possible innovations which would improve task accomplishment and emotional climate.[11] Direct feedback channels, from this point of view, are much needed.

Internal Integration

Another cluster of properties centers around the degree to which school systems are able to coordinate their different subparts to evoke the vigorous support of members for organizational goal achievement

[10] Yale University proposed to begin using judgments of teaching competence made by students—after graduation—as one factor in faculty tenure decisions (*New York Times*, Oct. 15, 1965); a number of other colleges and universities are also using this source of data.

[11] As in other hierarchical settings, it seems quite likely that subordinates (children) will stress emotional climate and consideration factors more than sheer task factors on the part of the superior (teacher). A simple experiment which the author has replicated a number of times with groups of adults goes as follows: Half the group list the most important characteristics which they feel they should have as teachers. The other half list the most important characteristics which their own best teacher had (themselves in the student role). When discussing own teaching behavior, the dominant theme tends to be mastery of subject matter, ability to "put it across," and organization of learning situations. From the point of view of the learner, at least as recollected, great teachers nearly always have high consideration, warmth, and attention toward the learner as a person.

efforts and to make sure that the informal "contract" which the individual makes with the organization is a mutually satisfying one.

Low interdependence. Generally speaking, it seems accurate to say that the different parts of school systems do not lock together as closely and sensitively as those, for example, of an industrial firm built around the construction and marketing of physical objects. Schools, as they are now organized in America, maintain adults in relative isolation from each other during the working day. Perhaps because of the vagueness involved in change induction in persons, most teachers do not appear to have a genuine common fate, in the sense that one person's role performance crucially links with that of another. This tends to be true not only at any given point in time, but sequentially as well: as children move from one classroom to another, and from one school unit to another (elementary to junior high school), there seems not to be active, interdependent work contact between the adults in the different parts of the system. In some school systems, the principal is a central exhibit of noninterdependence; he operates his building as a king, avoiding or ignoring central office demands, *and* spends little time working with teachers on the improvement of their role performance.

It is important to note that a low degree of interdependence ordinarily makes a system much more difficult to alter, since if changes occur in one part (e.g., in one teacher's practices), there are no meaningful channels or linkages by which they can travel to other parts of the system. This state of affairs may lead to internal integration problems centering around teacher morale: feelings of isolation, depression, and nonconfirmation by peers. (Of course, low interdependence also aids system stability: a complaining parent affects only the principal and a teacher —not the whole school faculty. Compartmentalization has its uses.)

Mobility limitations. Another source of morale problems centers around career paths and mobility routes in schools. It has already been suggested that mobility within the teacher role[12] tends to be relatively difficult (or at least will remain so until differentiated roles like those of master teachers and team leaders become much more widespread than at present). For women, in American public schools, teaching has been a job entered as a temporary position between college completion and marriage, *or* a relatively stable role entered by people without active ambitions for upward mobility. For men, on the other hand, the teacher role has classically served as a stepping stone to administrative jobs.

[12] Though mobility from less desirable to more desirable *buildings* or systems (Becker, 1952) does occur frequently, average annual school system turnover is about 13%.

Thus, there are at least two sources of potential nonoptimization of the psychological contract between the teacher and the organization. First, the job is often a means to something else and not intrinsically satisfying. Second, it is usually not easy to become radically more skilled or developed in the job or to receive added recognition and rank increments for increased skill.

Accountability and compulsion. A third source of integration problems stems from the facts that children *must* be at school[13] and *must,* custodially speaking, be taken care of. If schools are minimally staffed, as often seems to be the case, teachers have little or no time during the day for peer work, personal development, teaching preparation, or rest. Thus principals worry about ways of "motivating" teachers to learn, grow, and develop—but usually do little to alter the basic constraints which limit the effectiveness of the teacher.

• *From the child's viewpoint:* Compulsion probably looms fairly large to the child; he *must* come to school whether he likes it or not, unless he can occupy the magical sick role. Teachers' efforts to "motivate" him are probably appreciated, but continued compulsion, as Goodman (1964) implies, may well wither the inner motivation to grow and develop which is present in all infants. Compulsion communicates: "We do not think you want to learn."

If the child sees the teacher role as not a particularly desirable one for adults (i.e., perceives the mobility limitations in it), one might expect teachers to be chosen less frequently as role models or consulted less frequently about decisions that matter. Coleman (1961) did find that when high school students were asked whose disapproval would be hardest to take, their nominations were parents (54%), peers (43%)—and teachers (3%).

Low interdependence among teachers and other personnel probably encourages the child to concentrate on pleasing or reacting to the individual teacher with whom he happens to be interacting at the moment. Child-initiated attempts to change or improve the organization (e.g., student strikes, or the operations of a high-powered student council) do occur, but not frequently.

Adaptation Problems

Many different system properties seem to center around the mutual adaptation of school and community, seen as a special case of the organization in its environment.

[13] Except in Mississippi and South Carolina.

Vulnerability and defensiveness. Perhaps the most central adaptation problem is that the "skin" of schools feels almost unbearably thin to many of its inhabitants. Insiders feel that demands, criticism, and control can come into the system at almost any point. These feelings flow not only from the definition of the schools as public and "locally" controlled, but from the fact that children return to their parents each night with news of how they have been treated. Yet many parents seem to feel hesitant, powerless, unable to complain if they hear of a teacher behavior or a curriculum item of which they disapprove, and sure that teachers or principals will react defensively. These paradoxically differing sides of the coin suggest that manageable means for accepting influence from the environment may be underdeveloped in many school systems.

Of course, it is reasonable that a system which not only must accept all the (child) input which comes to it, but also has a "nonquitting" clause attached to the child's participation should remain open to inspection. In this sense, openness to influence from the environment is a functional property of a school system. However, as suggested in the next section, this genotypical property can also lead to symptoms on the order of organization passivity and willingness to be "run by the environment," deceptive stances toward the environment, or (given a conservative surrounding) reinforcement of safe, traditional practices.

Noncompetitive position. The American public school is defined as essentially noncompetitive with other schools in its environment. It must take all comers who apply: it has difficulty in extruding even the most severely disturbed or retarded child. And there are few ways, because of district boundaries, in which a school district can enter the market and actively bid for particularly capable and interesting learners —in the same way that private schools and colleges can.[14] In short, regardless of its performance level, the American public school will continue to exist. There is little interschool competitive pressure for excellence. Locating and attracting a superior staff usually seems to be accomplished primarily by financial means, rather than by allusions to the quality of the educational experiences offered in the system.

Radical environmental change. The American public school today is in the midst of an environment changing more rapidly than at any time in the history of the common school. The changes include the numbers and social-class membership of students appearing at any particular school; the attitudes, information, and values they bring to the school program; the explosion of knowledge underlying school subject matter;

[14] This pattern has exceptions, of course. In New York, specialized high schools (Music and Art, Bronx Science, Performing Arts) compete with general high schools for talented students. And the swim club at the Santa Clara, California, high school has produced enough Olympic champions so that families move to that community just so that their children can become eligible for the club.

and the political, social, and economic structures surrounding the school. So, whatever the adaptation problems of schools may be, we can be quite sure that in the immediate period ahead they will be radically accentuated. Indeed, it may not be too much to say that adaptation failures are the most serious problem area for almost any school district in America today.

• *From the child's viewpoint:* While parents may feel a sense of frustration at not being able to influence the school, and teachers may feel vulnerable and overinfluenced by parents, the child probably experiences the vulnerability/defensiveness of the school primarily in terms of role conflict and his membership in overlapping groups. He becomes the focus or arena of conflicting forces and is likely to respond in a variety of familiar ways: compartmentalizing and separating "school" from "life" (often with the school's encouragement); giving one set of demands primacy at a given point of time and slighting the other; becoming immobilized; trying to meet both sets of goals and norms with resulting high tension; or playing off one set of demands against the other.

The noncompetitive nature of the American public school may also have motivational effects for the child. Since the school is not a scarce resource in the child's environment, and since public schools in America are apparently not that radically differentiated from one another, the psychological dropout who is an apparent stay-in may be more frequent than we think. Though strong deviant behavior is controlled by various familiar means, the child can easily become a hidden deviant from school system norms by withdrawing, remaining passive, or accepting "side payments" in the form of athletic participation, friendship, or sexual activity.

What do school children think of the "explosion of knowledge"? One's impression is that they welcome it. This is simply the way the world is—curiouser and curiouser. Though the child is not really the noble savage some polemicists paint him, he is certainly less likely than adults to have investment in old frameworks, or to chew up his self-esteem in the problems of unlearning; he can simply begin discussing satellite orbits immediately—because that's the way the world is. It has already been suggested that the child's major weapon is the threat or action of refusing to learn (at least in the school's terms); it may be that a matter-of-fact confrontation with the complexity of the modern world is almost as successful and upsetting a defense against "the old folks."

SYMPTOMS OF DIFFICULTY IN TODAY'S SCHOOLS

The intent in this section is not to produce an exhaustive category of presenting ailments which one might expect school systems to have.

Rather, the attempt is to label a number of behaviors or problems which can be seen as symptomatic results of the genotypical properties of the school in interaction with the present demands it is facing.

Most of the symptoms and problems specified here are described from the viewpoint of an outside diagnostician with social scientific interests. Some of them would not be seen as problems by practicing administrators (and have, in fact, been denied as central by some the author has talked to). One ought, optimally, to collect a large sample of diagnostic statements from practitioners, then look at their relevance to the preceding analysis. In the absence of anything like empirical data, the statements of problems which follow have flowed from that analysis and from some limited experience with school systems.

As before, the problems are organized around the four general categories of goal, task functioning, internal integration, and adaptation.

Goal Problems

Moralism. Outside observers often comment that people working in schools tend to invoke ideological, judgmental, or moralistic bases for making decisions. "Should" and "ought" seem to outweigh "is" and "can."[15] School people, too, complain of this, saying that they "do things by the seat of our pants" instead of relying on research or inquiry. Statements of intention (e.g., "we must make better citizens") more often than not outnumber actual goal-directed efforts. This general tendency may be connected with the problem of goal ambiguity and the fact that few hard data are available to guide decisions anyway.

In addition, because the schools are an avenue to later mobility of students, there are strong forces toward parents' perceiving the school as a "judgmental agency," which categorizes one's child along important dimensions (achievement, middle-class value orientation) and compares him with other children in the neighborhood.

Value conflict. Vulnerability and "local" control, in conjunction with the socializing function of the school, may mean that latent or explicit value conflict is a frequent problem area. The "Case of the Beatle Haircut" can be called moralistic repressiveness if one happens to be on the side of adolescents (see Friedenberg, 1965) and disruptive exhibitionism if one happens to be on the side of administrators. One gets the impression that the school tends to lag considerably behind community sentiments, perhaps because of its traditionally conserving role and the perceived vulnerability problem. The school's role as a transmitter of ideal culture means, in Linton's terms, that it can not tolerate attacks on the ideal, even though ideal-actual discrepancies are visible and acknowledged.

[15] Cf. Ojemann's (Muuss, 1960) focus on developing causal orientation in teachers to offset the moral-evaluative stance.

Financial emphasis. In the absence of clear output criteria (and in the absence of capable internal data collection mechanisms), considerable energy in schools goes into money-raising efforts of one kind and another. Also, educational programs seem to be justified either in terms of the amount of money being spent (we care about our children; and we want to spend as much as we possibly can, within reason, to get them the best possible education)—or by making a virtue of thriftiness (we are providing the same adequate services as before, at a reduced cost). In either event, the criteria tend to become primarily *financial*, rather than directly goal-connected and output-based.

Task Functioning

Procedural rigidity. It does seem difficult to change the way in which teachers and administrators do things. In the absence of clear output criteria, there is little motivation to shift procedures. And it is true that, in a system open to influence from the outside, some aspects of the system need to be kept firm (e.g., tenure systems, predictable scheduling, and so on) as a kind of hedge against the inroads of the environment. Nevertheless, outsiders—and many insiders—seem to wish that schools could change their practices somewhat more expeditiously than at present.

Lack of R & D function. Out of 30,000 school districts, there may be 100 or so (usually large city systems) which have a research function systematically built in. (One's impression is that even these few tend to become "educational bookkeeping" and administrative data-gathering devices.) It is very doubtful that more than a dozen school systems in America have anything that might be called a systematic research and development unit to develop new practices, test them for feasibility and efficacy, and aid in diffusing them to various parts of the system. In addition, institutionalized change-agent roles analogous to those of the engineer, the field tester, or the county agent seem to be underdeveloped or lacking in the traditional American system (Miles, 1966).

Lippitt has suggested[16] that in relatively low-interdependent systems such as those formed by the teachers in a particular school building, or a school district among other school districts, scattered adoption of innovations is a fairly easy matter—but systematic diffusion across subsystems is much more difficult. The converse has been suggested to be true for the educational system of the Soviet Union, in which the gross number of innovations is relatively smaller than the total here; but—in such a high-interdependent system—adoption of what *is* invented and tested takes place more rapidly and on a wider scale.

[16] At COPED Seminar, August 5-9, 1965.

Administrative overload. Life being what it is and aspirations what they are, almost any executive will complain that he has too much to do. This presenting symptom, however, seems to be more frequently encountered in schools than in other types of organizations. This problem is perhaps primarily a function of high system vulnerability. In addition, certain notions about role boundaries may be at work—such as the unshakable idea that the superintendent of schools must work capably with the board; *and* be an educational statesman in the community, the state, and the nation; *and* attract funds from federal and state sources; *and* be an instructional leader within the system—all with only seven days and nights a week available.

Teacher quality problems. Self-selective processes occur in the recruitment of teachers for the American public school; persons who are less verbally able, more passive, more deferent, and less competitive than other professionals tend to enter teaching jobs. Some of these traits are congruent with nurturing, supporting behavioral styles, and are thus role-appropriate. However, persons with lower verbal ability (and less informational content, as some studies of teachers have discovered) can only be seen as limited in their capacity for effective teaching. This problem, when combined with the fact that thoroughgoing tenure regulations exist in most school districts, seems to cause many administrators to feel despair and helplessness, or to resort to variously Machiavellian styles of persuasion in "motivating" teachers to learn, grow, and develop.

Conflicts of expertise. Connected with the teacher quality problem is another: many internal school decision issues involve administrators and teachers, or teachers and teachers, in latent struggles over who is more competent to decide the particular issue at hand. This is a more subtle version of the lay-professional problems which plague superintendents, boards, citizens—or almost any school role occupant. Perhaps expertise conflicts help explain why both administrators and teachers seem to be particularly anxious about the problem of teacher-performance improvement. Managers are always panicked by the thought of having to be helpful to subordinates and to aid their development in any systematic and serious way. It seems likely, however, that such anxieties are intensified in schools by disagreements over the legitimacy of one's expertise, particularly in a setting in which your immediate superior may know considerably less about the problem at hand than you do.

Integration and Maintenance

Morale. As in other types of systems, this label covers a multitude of strains. In the case of the school, frustration stemming from expertise conflicts, the sense that one's work is not intrinsically satisfying, and

hopelessness about one's career future may all tinge one's day-to-day sentiments negatively.

Intergroup conflicts. Because the school is age-graded, and divided into elementary and secondary building groups, conflicts between elementary, junior high, and high school teachers seem to arise routinely; and they are accentuated by conflict between each of these groups and "the central office" in any system of more than moderate size. These conflicts seem sharpest at points of articulation between the various levels. As in any intergroup conflict, there are problems of inflated group self-image, negative stereotyping of the other, and so on. In the case of teacher-central office conflicts, the main issues may well center around the use of power (cf. Fischer, 1964).

Low personnel development investment. In comparison with most other types of organizations, little money is expended by school systems on the development of system members. Such adult learning is conceived of as an individual matter or is regarded as a violation of norms of academic freedom, autonomy, and so on if engaged in at all seriously. Yet it seems true that serious innovation in many school systems has only come about when rather vigorous personnel development efforts—often with outside funds and facilities (e.g., National Science Foundation institutes)—have been installed as a routine part of organizational life.

Adaptation Failures

Passivity. In many school systems, the main stance of the chief administrator in the face of system vulnerability and varying demands from the environment is a withdrawing, passive one; the school is seen as the dependent variable, as "the Other," to borrow from Simone de Beauvoir. The tacit view of the school is that it has little power to initiate, develop, grow, push things, or be disagreeable to anyone or anything.

Defensiveness. Setting up barriers of various kinds, withdrawing into ritualistic use of existing procedures, justifying existing policy, and the like also seem to appear rather frequently as a response to pressure from outside. Here, too, the passive stance seems part of the implicit assumptions held by the administrator.

"Problems with parents." Several years ago, in a training group composed of elementary school principals, the author asked the members individually to jot down topics for a role-playing scene they would like to do. Thirteen of fourteen principals, after brief reflection, came up with "an interview with an irate parent." Rage over the treatment of one's child is sometimes legitimate, one supposes—but presumably non-rational factors are at work too.

The young child's departure to the school can induce family disequilibrium and a strong sense of loss in parents. And if the school is

actually successful with the child, reactions of envy and hostility often set in. Parental fear and mistrust can also develop because of the school's power to make judgments about the child's competence. Some parents feel they may be stereotyped as inadequate in their previous socialization efforts—and feel little expectation that they will be praised if the child turns out to achieve well in school.

Decision-making problems. Many superintendents report severe difficulty in coping with boards of education, not because boards are an overselection of particularly cantankerous people, but presumably because a board represents a kind of arena of conflicting influences in the local community. It is in such decision-making sessions—whether closed or open to the public—that one sees very clearly that the school is part of a large intersystem: it acts more like a subsystem of a community than like a classical, isolated bureaucracy. Thus diffuse, conflictful, mistrustful, value-laden interaction is likely; and good decisions are hard to get.

IMPLICATIONS FOR RESEARCH AND ACTION

This section[17] attempts some derivations from the foregoing analysis which may guide efforts—like those being launched in the COPED project[18]—to derive valid knowledge about the process of improving schools. It is intended to be stimulative and questioning rather than exhaustive—and it covers general implications; entry problems; persons, roles, groups, and relationships which are the targets of change efforts; broad change goals; strategic considerations; and some concluding commentary on types of social inventions needed.

General Implications

It seems that many aspects of schools as organizations, and the value orientations of their inhabitants, are founded on history and constitute what feel like genotypical properties. These are important to the schools; they help maintain continuity and balance in the face of the school's ambiguous mission and its vulnerability to external pressures from parents and others. Therefore, it is likely that, while rapid shifts in specific school practices are relatively more possible, changes touching on the central core of assumptions and structures will be far more difficult to achieve.

Present properties of school systems have current utility. Change efforts must be prepared to acknowledge and respect the functionality of

[17] Co-authored with Donald C. Klein.
[18] For a description of COPED, see the introduction to this volume. [Ed.]

those properties which achieve such objectives as the following: (1) softening or bridging class distinctions; (2) maintaining the "thing" orientation deemed necessary to an industrial society; (3) controlling large numbers of children in situations of high population density; (4) maintaining the job security of school personnel. Whether or not change agents' values square with these objectives, they are held, explicitly or implicitly, by many in our society. To the extent that current properties of schools serve these objectives, the properties will be more immune to change efforts.

Certain changes will be difficult to achieve because they impinge on or threaten to alter cherished community values or the delicate and tension-laden balance of control between school and community. A prime example is modern marking and reporting systems devised by educators to provide more rounded appraisals of pupils. In many communities such systems have been withdrawn as a result of pressures from parents to return to traditional letter grades. In other cases, however, the content of the innovation is basically not at issue; what seems at work in the community is a cumulative sense of alienation and impotence, and a feeling that the schools represent the last island of direct citizen participation and control.

A further implication of the foregoing analysis is that one must be prepared to consider whether the changes being worked on at any point represent attempts to modify essential properties, or are only attacks on symptoms. This distinction may not always be easy to make: we are dealing with complex and not well-understood phenomena when we consider the intersystem nature of the school and the implicit, difficult-to-observe phenomena which are characteristically found in community settings. It is not always safe to transfer notions drawn from the study of relatively more self-contained systems, such as industrial organizations, to the school-community setting.

Even if it is clear that genotypes *are* being worked on, the question of the degree of modifiability remains. For example, consider the essentially involuntary nature of the school-client relationship. Would it be possible for change-agent teams to modify this aspect of the schools? With only a little imagination, it is possible to suggest ways in which families could have more freedom in choosing their children's teachers (open enrollment plans, Project Exodus in Boston, and similar ideas) and vice versa. No doubt any such change would add to the cost of education. However, the increased cost would probably be compensated for by increased efficiencies following from the elimination of some control mechanisms now established to protect both parties against unduly arbitrary behavior on the other's part. But even so, strong resistance could be expected against any effort to alter such a central characteristic of schools.

Earlier in this analysis, it was suggested that the schools' lack of research and development activities may represent a defense against laying bare underlying conflicts. An innovative program like the COPED one has a central research and evaluation component. Are COPED teams handling the resistances adequately? Are they in a position to help work through some of the underlying conflicts which collaborative evaluation is uncovering?

Finally, and most crucially, many of the very properties discussed here—resistance to evaluation, concern about vulnerability, adaptation failures—make responsible field-research designs difficult to plan and hard to execute. Demonstrating that a change-agent team's interventions have in fact caused noted changes, *and* explaining why they occurred, may well be much more difficult than in (for example) industrial settings.

Entry Problems

It seems clear that the entry of any change agent into a school system constitutes, initially at least, an additional threat to the integrity of the system. Though there is almost always such heightened tension when change agents enter client systems, the problem may be especially acute in most public schools, for reasons mentioned earlier. For example, in view of the vulnerability of schools to outside influence, what unintended consequences does a unit like a COPED team generate as it becomes, in effect, another outside force seeking to foster change? No matter how pure our motives, and no matter that we are convinced that we will be working only to help the schools achieve the objectives they themselves set, we will inevitably be perceived as joining forces with certain groupings and helping tip the balance against others. Though COPED aims to equip inside change agents to manage their own change programs, the risk is that we fail to understand, or to document exactly, the impact of our own outsiderness.

In addition to the idea of building teams of internal change agents, programs like COPED might well add the strategy of developing personnel within the schools capable of making horizontal linkages to their localities, as well as vertical linkages to the state and national educational groups which are increasingly impactful on local schools. Therefore, there may be a need to involve state and federal educational authorities in the overall program and in specific local activities.

Given the intersystem nature of the school, long-lasting innovations may require use of change models used in community development programs as well as in organization change projects. This suggests not only system-wide involvement in the change process, but also careful work on linkages among the system, other socialization agencies, and

other key community groups. COPED is in an especially advantageous position to test this notion via comparative studies in different client systems, ranging from "direct worker" approaches aimed at the teacher, through institution-centered change strategies, to broader community-based ones.

The complex nature of the school system—which is both a hierarchical organization and a part of a complex community fabric—requires any change agent to pay careful attention to the matter of gaining sanctions for his work. Yet it is difficult to conceptualize adequately the various publics of the schools. Schools and communities alike vacillate between considering children—and/or their parents—to be part of the clientele of the schools. However, the parents clearly belong to the sponsoring community and can exert influence and control via individual or organized pressure on school officials. The situation is further complicated by the fact that most parents represent a transient part of the school's existence. Nonparent taxpayers are also sponsors. Under the circumstances it is not entirely clear to whom COPED teams should be turning for support and sanction at the point of system entry. This problem exists even for a purely "inside" change-agent team, and it is heightened as connection to outsiders increases.

At any rate, multiple sanctions will be required from several levels within the school and possibly also from key individuals and groups in the larger community. It also seems important to create opportunities for frequent renewal of sanctions with those involved. Recurrent data feedback and training events may be needed in order to enable project teams to help the schools and others work through concerns which may have arisen during any phase of a project.

Target Groups, Roles, Individuals

Where should a change-agent group like COPED draw the circle to denote the client system with which it is working? The possibilities range from a sub-set of teachers to the individual school building to an entire community. And how can inside change-agent teams define for themselves the relevant client system?

Presumably, COPED is ultimately committed to the improvement of practices deemed educative for children. But does this mean that the ultimate clients are the children? If so, how will they be involved in the change process? And how about their parents?

One way of considering change targets is to examine *relationships* deemed crucial in the school, rather than separate roles, groups, or persons. The author's nominations for pivotal relationships deserving changeful attention are: 1) superintendent-board; (2) superintendent-cabinet; (3) central office-principal; (4) principal-teachers; (5)

teacher-teacher; (6) teacher-student; (7) teacher-parent; (8) superintendent (or surrogate)-community power figure.

Change Goals

The analysis in this paper suggests four major change goals for school systems. These are: (a) increased internal interdependence and collaboration; (b) added adaptation mechanisms and skills; (c) stronger data-based, inquiring stances toward change; (d) continuing commitment to organizational and personal growth and development.

Interdependence. It has been suggested that isolation of individual educators within a system probably has a defensive function. It also makes it very difficult for school personnel to secure help and support from one another, to develop adequate solutions to educational problems, and to diffuse these inventions to others. Thus it seems useful for change-agent teams to identify and reinforce existing interdependencies within each school system and to build additional ones as indicated.

A collaborative approach to change presumably involves an interplay between parties who relate to each other on a reasonably equal-status basis. The analysis earlier suggested that each status occupant in the school (i.e., child, parent, teacher, administrator, school board, and citizen) feels relatively powerless to affect the schools, at least in certain significant areas. Thus *power equalization* becomes an important aspect of facilitating interdependence (cf. Leavitt, 1965).

Adaptation. This paper has asserted that the major problem of school systems today seems to be that of keeping pace with rapid and radical changes in their environments—not only the communities served by the schools, but also state-level and federal-level government, foundations, materials producers, and a host of other systems. A major function of an effective change program should be that of attempting to help schools develop, test, and institutionalize the adaptive mechanisms they must have in order to cope effectively with accelerated change.

For example, though it is clear that school officials labor under a tremendous overload—in terms of time, emotional investment in the problems which confront them, and the impossible multiplicity of functions—it is not wholly clear what maintains this state of affairs. It has been the function of the superintendent to act, virtually single-handedly, as the linking pin between school personnel and the public, while giving hopefully inspired leadership to both groups. Perhaps because of the uneasiness with which communities grant autonomy to the professionals in education, it is difficult for superintendents to share the linking and leadership functions with others. COPED and similar development programs need to seek a better understanding of

this situation and help school systems invent alternative coping mechanisms.

It would appear that COPED is, for the most part, committed to strengthening school-community ties; we tend to accept the value of participative models of teaching, planning, and decision making. However, organizations, like persons, need defenses. The adaptation problem is perhaps not so much that of shutting out the environment vs. admitting it in a rush, as of specifying more clearly what the *quality* of the organization-environment transaction should be.

Data-based inquiry. Much of the analysis here has stressed the inadequacy of available data in school systems, as a guide both for short-run operations and for longer-term change. At the classroom and at the system level, it seems quite likely that building in new feedback loops is a basic change goal. Interventions like those involved in survey feedback (Miles, *et al.*, 1966) seem very promising.

Commitment to self-renewal. Perhaps it is tautological to say so, but one feels a need to be explicit about the goal of starting self-developmental, continuing change processes in school systems. The orientation is not toward specific change projects alone, but to the *institutionalization* of change functions: research, system development, personal development. The growing availability of federal funds for such purposes is an encouraging support for work toward this goal.

Change Strategies

Change strategies may involve attention to attitude and value change, to social structures, or to processes occurring within those structures. Structural approaches, perhaps with some associated process-shaping effort, seem most likely to have high payoff. The theoretical reasons for this have been outlined by Watson (1966) in his S-P-A formulation: effective change sequence usually involves *structures* first, altered interaction *processes* as a result, and *attitudes* last. The already excessive emphasis in schools on ideology and normative prescription also suggests the wisdom of structural intervention.

For example, it may be that so long as the one-teacher-in-one-classroom model is maintained, it will be impossible to create the situation of interdependency and contact that will foster diffusion of new practices. The creation of team teaching situations may have facilitated far more change in teacher sensitivities and skills than could have been brought about by extensive human relations training of a cadre of teachers operating within the self-contained classroom model.

Some strategic work may involve attitude change (i.e., training-group experience to increase an administrative group's disposition to experi-

ment and trust one another or a teacher's willingness to accept feedback from students)—but, as the saying goes, love is not enough.

One other strategic emphasis seems fairly clear. If COPED—or any change-agent group—is to encourage an inquiry model in its affiliated school systems, it probably cannot afford to have images of "ideal" school systems, ideal classrooms, or ideal teaching practices—which with more or less subtlety on the change agents' part turn out to be adopted by participating school systems. Solution orientation seems far less appropriate than devotion to inquiry—to experimentally managed change processes—some of which may well emerge with teaching or administrative innovations that are ineffectual, silly, or misguided. But inquiry, one believes, is self-correcting.

Needed Social Inventions

A seriously self-renewing school system would presumably, with collaborative help from outsiders in projects like COPED, be able to invent and install a wide variety of structures—mechanisms for correcting dysfunctional aspects of schools. Lists of needed inventions are always fun; herewith, the author's:

1. *Methods for goal clarification.* Instruments and work methods for specifying areas of goal vagueness and dissensus, and for increasing goal clarity via dialogue, would aid life in schools a good deal.

2. *Goal-movement assessment tools.* It would be nice to have instruments which could help teachers assess precisely, from day to day, what the real, short-run consequences of their work have been.

3. *Improved mechanisms for feedback from children.* Not only instruments, but simple work structures which would permit more child influence on the classroom and the school building are much needed. The requirement is, How can adults hear—and use—what children have to say?

4. *Easy-to-use adult behavioral measures.* If the effects of changes in the school as an organization are to be monitored well, we need simpler and better measures of variables such as role definition, morale, perceived norms, conflict management. As Likert (1961) has pointed out for industrial settings, we need routine behavioral data as much as we do information on budgets, scheduling, and staffing.

5. *Free space for personal and organizational development.* More inventions on the order of flexible scheduling, staff-load reduction, released time, sabbaticals, and early dismissal seem crucial if serious effort is to be devoted to improving, rather than just running, the educational shop.

6. *Change-managing units.* The idea of an R & D council for a school system (involving personnel from special project teams, a genuine

research director, a couple of natural strategists, the superintendent, and so on) seems attractive. Other types of stimulative and planning subsystems should undoubtedly be designed.

7. *Interagency linking mechanisms.* How about a confederation of child socialization agencies and roles which meets recurrently in work conferences to diagnose and remedy the articulation problems they are facing? Child and parent members would be included.

8. *Personnel development units and programs.* Most school systems could use a powerful and legitimated role (or group) devoted to the growth, development, and career planning of individuals in the system. Creative adaptations of management development schemes used in voluntary agencies, government, and even industry could undoubtedly be made. For example, job rotation within local school systems seems a potentially useful but so far undeveloped tool.

9. *Role-supports for the superintendent.* Unleashing some innovative new thought on the question of "The Superintendency: An Unworkable Role" might turn up some solutions: new ways of using other administrators (and teachers) in work with the board; the creation of a grant-getting role; and the development of a panel of school-system speakers for community groups.

10. *Conflict management education.* Adaptation of methods already in use by National Training Laboratories for increasing awareness of and skill in conflict handling would undoubtedly be helpful.

11. *Inter-role and intergroup confrontation mechanisms.* We need schemes which will permit distantiated and conflicting roles (e.g., central office people and principals, elementary and junior high faculties) to engage each other in mutually profitable confrontation and work. Or how about the parents from one district coming to the principals of another district to explore "what principals and parents do to each other"?

12. *Environmental scanning roles.* There could be explicit roles in school systems devoted to scanning certain aspects of the environment (U. S. Office of Education programs; new developments in behavioral science; the local political structure and climate; state education department developments, and so on) and to feeding the resulting information to appropriate groups and roles within the system.

13. *Board development mechanisms.* Why not co-opt and professionalize boards of education even more than now happens? Team development work sessions; the use of data collection, process analysis, and feedback; and the redesign of public meetings are all possible.

As is anything in principle, in practice, schools are much less innovative than many people think they could be. The crucial issue underlying this paper is, Do we understand the essential properties of schools well enough to design and carry out improvement programs that have

a reasonable chance of becoming self-operative and self-developmental? In short, can school systems really become self-renewing? That remains to be seen.

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